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1,2. PHILOCHORTUS SPINALIS. 3,4. P. PHILLIPSII.



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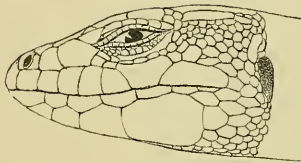
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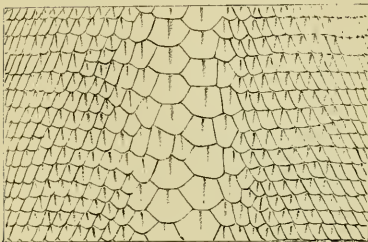
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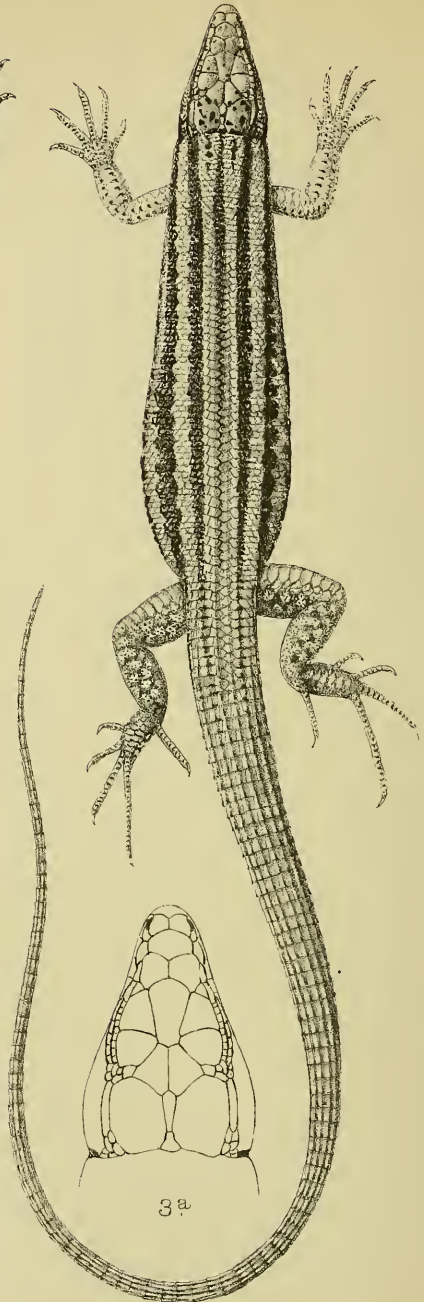
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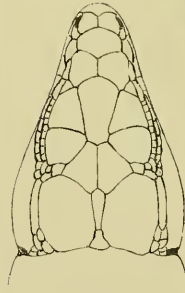
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8. On the Lizards of the Genus *Philochortus* Matschie.

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[Received January 27, 1917: Read February 29, 1917.]

(Plates I. &amp; II.†)

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## PHILOCHORTUS.

*Latastia*, part., Bouleng. Cat. Liz. iii. p. 54 (1887).*Philochortus* Matschie, Sitzb. Ges. nat. Fr. Berl. 1893, p. 30.

Head-shields normal, save for the occasional absence of the interparietal. Nostril pierced between two nasals and bordered by the first upper labial or narrowly separated from that shield. Lower eyelid scaly, more or less transparent in the middle. Collar well marked. Back with two to six longitudinal series of large plate-like scales; ventral plates feebly imbricate, with truncate posterior border, smooth. Digits more or less compressed, with smooth or keeled lamellar scales inferiorly. Femoral pores. Tail long, cylindrical.

Southern Arabia, Eritrea, Abyssinia, Somaliland.

This genus differs from *Lacerta* and *Latastia* in the longitudinal series of enlarged plate-like scales on the back, an approximation to the condition in *Poromera*, *Tachydromus*, and *Holaspis*.

In all the species the parietal foramen is absent, and a few small teeth are usually present on the pterygoids.

The subdigital lamellæ vary according to individuals; they are usually smooth or with two series of obtuse tubercles; sometimes, however, the tubercles form obtuse keels, and in a female of *P. neumanni* there is a rather sharp keel along the middle. Steindachner has already observed that of the two types of *P. hardeggeri* one has the subdigital lamellæ distinctly keeled, whilst in the other the keels are scarcely indicated.

The species grouped under this genus thus afford another argument against the unnatural division of the Lacertidæ into two main groups, *Liodactyli* and *Pristidactyli*, according to the absence or presence of keels on the lower surface of the digits, which the state of things in *Psammodromus* and *Scaptira* had already led me to abandon.

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† For explanation of the Plates see p. 157.

*Synopsis of the Species.*

- I. Dorsal plates smooth or very feebly keeled; interparietal usually absent or separated from the occipital by the parietals meeting in the middle; usually 4 upper labials anterior to the subocular; 11 to 15 femoral pores on each side.
- 30 to 42 dorsal plates and scales across the middle of the body; hind limb not reaching the ear; foot  $1\frac{1}{3}$  to  $1\frac{2}{3}$  times length of head ..... *P. spinalis* Peters.
- 28 or 30 dorsal plates and scales across the middle of the body; hind limb reaching the ear; foot  $1\frac{2}{3}$  times length of head ..... *P. phillipsii* Blgr.
- II. Dorsal plates more or less strongly, rarely feebly keeled; interparietal in contact with the occipital or separated from it by a small shield; usually 5 upper labials anterior to the subocular.
- 38 to 42 dorsal plates and scales across the middle of the body; 12 to 14 large keeled scales in a transverse series between the hind limbs; supraoculars in contact with the frontal; 29 to 34 gular scales in a longitudinal series; 14 to 16 femoral pores on each side; 33 to 35 lamellar scales under the fourth toe. . . . . *P. neumanni* Matsch.
- 33 to 40 dorsal plates and scales across the middle of the body; 12 to 18 large keeled scales in a transverse series between the hind limbs; supraoculars in contact with the frontal; 21 to 28 gular scales in a longitudinal series; 12 to 18 femoral pores on each side; 24 to 30 lamellar scales under the fourth toe. . . . . *P. intermedius* Blgr.
- 24 to 30 dorsal plates and scales across the middle of the body; 8 keeled plates in a transverse series between the hind limbs; supraoculars usually separated from the frontal by a series of granules; 25 to 28 gular scales in a longitudinal series; 11 to 13 femoral pores on each side; 25 to 31 lamellar scales under the fourth toe. . . . . *P. hardeggeri* Stdr.

## 1. PHILLOCHORTUS SPINALIS. (Pl. I. figs. 1, 2.)

*Lacerta spinalis* Peters, Mon. Berl. Ac. 1874, p. 369, pl. —, fig. 2.

*Latastia spinalis* Bouleng. Cat. Liz. iii. p. 57 (1887); Stejneger. Proc. U.S. Nat. Mus. xvi. 1894, p. 717; Bouleng. Ann. Mus. Genova, (2) xvi. 1896, p. 551; Tornier, Zool. Jahrb., Syst. xxii. 1905, p. 375; O. Neumann, t. c. p. 395.

Head and body feebly depressed. Head  $1\frac{1}{2}$  to  $1\frac{2}{3}$  times as long as broad, its depth equal to the distance between the anterior corner of the eye and the tympanum, its length 4 to  $4\frac{1}{3}$  times in length to vent; snout obtusely pointed, as long as postocular part of head, with obtuse canthus. Pileus twice as long as broad. Neck as broad as the head or a little narrower. Hind limb reaching the shoulder or between the shoulder and the ear in males, the axil or the shoulder in females; foot  $1\frac{1}{3}$  to  $1\frac{2}{3}$  times as long as head; toes slender, feebly compressed. Tail 2 to  $2\frac{1}{2}$  times as long as head and body.

Nostril pierced between 3 shields; nasals forming a suture behind the rostral, the suture  $\frac{1}{3}$  to  $\frac{2}{3}$  the length of the frontonasal, which is much broader than long and broader than the internarial space; præfrontals forming a short median suture; frontal as long as its distance from the end of the snout,  $1\frac{1}{2}$  to



$1\frac{2}{3}$  times as long as broad, angular in front, much narrower behind, not or but very feebly grooved in front; parietals  $1\frac{1}{4}$  to  $1\frac{1}{2}$  times as long as broad, meeting on the median line, the interparietal being small and separated from the occipital, or altogether absent\*; occipital small†, triangular. Two large subocular supraoculars, preceded and followed by a small one (first and fourth), often broken up into two or more small shields or granules, the first in contact with the frontal; 6 or 7 superciliaries, separated from the supraoculars by a series of granules. Lower eyelid opaque or somewhat translucent, with feebly enlarged scales in the middle, some of which are deeper than the others. Rostral not entering the nostril; a single postnasal; anterior loreal shorter than the second‡; 4, rarely 5, upper labials anterior to the subocular, which is usually narrower beneath than above. A long narrow upper temporal, usually in contact with the fourth supraocular, followed by one or two small shields; upper temporal scales small and granular or hexagonal, lower larger; a more or less distinct tympanic shield.

4 pairs of chin-shields, first two or three in contact in the middle; 21 to 29 gular scales between the symphysis of the chin-shields and the median collar-plate, granular in front, gradually or abruptly enlarged and imbricate behind, those of the last row often as large as the plates of the collar; no gular fold. Collar with strongly serrated edge, composed of 7 to 10 plates.

Scales granular on the nape; 2, 4, or, rarely, 6, rows of hexagonal plates along the back, usually smooth, sometimes very feebly keeled; these plates rather small and usually merging gradually into the granular, flat, smooth, or obtusely keeled scales on the sides; 30 to 42 plates and scales across the middle of the body. Ventral plates in 6 longitudinal and 27 to 32 transverse series, the border of the transverse series notched between the plates the median pair of which is narrower than the others. Præanal plates small and irregular, or two median enlarged.

11 to 15 femoral pores on each side. 27 to 30 lamellar scales under the fourth toe.

Caudal scales forming alternately longer and shorter whorls, upper oblique, rather strongly and diagonally keeled, rounded or obtusely pointed behind, lower feebly keeled. basals smooth; 21 to 28 scales in the fourth or fifth whorl behind the postanal granules.

Young dark brown or black on the body, with 6 yellowish-white longitudinal streaks, the median pair bifurcating on the nape, the outer branch extending to the superciliary edge, and uniting on the base of the tail; the upper lateral streak from the eye to the tail, passing above the tympanum, the lower from

\* Absent in the type-specimen and in most of the 59 specimens from Ghinda examined by me. I was wrong in thinking the absence of this shield in the type-specimen to be an individual anomaly.

† Divided into two in the type-specimen.

‡ Absent in the type-specimen.

the upper lip to the thigh, passing through the tympanum and above the fore limb, reappearing on the back of the thigh; upper surface of head pale brown, with or without darker mottling; upper surface of fore limb pale brown, the shields dark-edged, of hind limb brown with round white spots; lower parts white; tail coral-red. These markings may entirely disappear in the adult, or the dark spaces between the light streaks may be replaced by longitudinal series of dark brown or black spots on a yellowish-brown ground.

Measurements, in millimetres.

	1.	2.	3.
From end of snout to vent .....	55	49	52
"                    fore limb ...	19	17	18
Head .....	12	12	12
Width of head .....	7	7	7
Depth of head .....	6.5	6	6
Fore limb .....	19	17	17
Hind limb .....	34	31	31
Foot .....	17	16	16
Tail .....	—	122	123

1. ♂, *Rugdeia Sogheira*. 2. ♂, Ghinda. 3. ♀, Ghinda.

Particulars of specimens examined.

	1.	2.	3.	4.	5.	6.	7.
♂, <i>Rugdeia Sogheira</i> , Adal...	55	34	29	8	26	13-12	29
"    Ghinda .....	53	34	29	9	21	14-15	30
"    " .....	49	33	27	9	24	12	27
"    " .....	49	37	29	7	22	14-15	28
♀,    "    " .....	55	37	32	8	29	15	29
"    " .....	52	38	32	7	22	12	28
"    " .....	47	36	32	7	25	13	28

1. Length to vent (in millimetres). 2. Plates and scales across middle of body. 3. Transverse series of ventral plates. 4. Plates in collar. 5. Gular scales in a straight line between symphysis of chin-shields and median collar-plate. 6. Femoral pores (right and left). 7. Lamellar scales under fourth toe.—Same tabulation for the following species.

*Habitat.* Eritrea. The type-specimen is from Bogos.

I have examined the type-specimen and one from Adal in the Berlin Museum, two from *Rugdeia Sogheira*, and 59 from Ghinda, in the Genoa Museum.

2. *PHILOCHORTUS PHILLIPSII*. (Pl. I. figs. 3, 4.)

*Latastia phillipsii* Bouleng. Ann. & Mag. N. H. (7) ii. 1898, p. 131.

Head and body rather depressed. Head about  $1\frac{1}{2}$  times as long as broad, its depth equal to the distance between the centre of the eye and the tympanum, its length a little more than 4 times in length to vent; snout obtusely pointed, as long as postocular part of head, with obtuse canthus. Pileus twice as long as broad.

Neck a little narrower than the head. Hind limb reaching the ear-opening; foot  $1\frac{1}{2}$  to  $1\frac{3}{4}$  times as long as head; toes slender, compressed. Tail  $2\frac{1}{2}$  to  $2\frac{3}{4}$  times as long as head and body.

Nostril pierced between 3 shields; nasals forming a suture behind the rostral, the suture  $\frac{1}{3}$  to  $\frac{1}{2}$  the length of the fronto-nasal, which is much broader than long and broader than the internarial space; præfrontals forming a short median suture; frontal as long as its distance from the end of the snout, nearly twice as long as broad, angular in front, much narrower behind, feebly grooved; parietals  $1\frac{3}{4}$  times as long as broad, meeting on the median line between the narrow or very small interparietal and the small triangular occipital. 4 supraoculars, first small, divided into two and in contact with the frontal, second and third large and subequal, fourth small and sometimes divided into two; 5 or 6 superciliaries, separated from the supraoculars by a series of granules. Lower eyelid transparent in the middle, with feebly enlarged scales, some of which are deeper than the others. Rostral not entering the nostril; a single postnasal; anterior loreal shorter than second; 4 upper labials anterior to the subocular, which is a little narrower beneath than above. A long narrow upper temporal, in contact with the fourth supraocular, followed by two small shields; upper temporal scales small and granular, lower large; a distinct tympanic shield.

4 pairs of chin-shields, first three in contact in the middle; 21 gular scales in a straight median line, granular in front, gradually enlarged and imbricate towards the collar, which is formed of 9 plates.

Scales flat, granular on the nape, subimbricate and smooth or faintly keeled on the body, with the two series on the spine much enlarged and plate-like, hexagonal, and twice as broad as long; 28 or 30 plates and scales across the middle of the body. Ventral plates in 6 longitudinal and 26 transverse series, the border of the transverse series notched between the plates, the median pair of which is narrower than the others. Two enlarged præanal plates, one in front of the other, with smaller plates anteriorly and laterally.

13 femoral pores on each side. 27 to 30 lamellar scales under the fourth toe.

Caudal scales forming alternately somewhat longer and shorter whorls, upper oblique, rather strongly keeled, obtusely pointed behind; 20 scales in the fourth or fifth whorl.

Young dark brown above, with 5 yellowish longitudinal streaks, the median bifurcating on the nape, each branch extending to the middle of the posterior border of the parietal shield; the lateral streaks occupying the same position as in *P. spinalis*. Adult grey above, with 3 lemon-yellow longitudinal streaks, the median forked on the nape, and with crowded black dots forming a band from the temple to above the hind limb; limbs speckled with black. Lower parts white. Tail red in the young.

## Measurements, in millimetres.

	♂.
From end of snout to vent .....	42
"                    "    fore limb .....	16
Head .....	10
Width of head .....	6
Depth of head .....	5
Fore limb .....	16
Hind limb .....	29
Foot.....	16
Tail.....	114

This species is known from two specimens obtained at Berbera, Somaliland, by Mr. E. Lort Phillips. Distinguished from the preceding by the longer foot and by the light streaks being in odd number on the body.

## 3. PHILOCHORTUS NEUMANNI. (Pl. II. fig. 1.)

*Philochortus neumanni* Matschie, Sitzb. Ges. nat. Fr. Berl. 1893, p. 30.

*Latastia neumanni* Anders. Proc. Zool. Soc. 1895, p. 643, pl. xxxvii. fig. 1; Steind. Denkschr. Ak. Wien, lxi. 1901, p. 330.

*Latastia hardeggeri*, part., Anders. Proc. Zool. Soc. 1901, ii. p. 145.

Head and body feebly depressed. Head about  $1\frac{2}{3}$  times as long as broad, its depth equal to the distance between the centre of the eye and the tympanum, its length 4 to  $4\frac{1}{2}$  times in length to vent; snout obtusely pointed, as long as postocular part of head, with obtuse canthus. Pileus twice as long as broad. Neck as broad as the head or a little narrower. Hind limb reaching the collar or between the collar and the ear; foot  $1\frac{2}{5}$  to  $1\frac{1}{2}$  times as long as head; toes slender, compressed. Tail  $2\frac{1}{4}$  to nearly 3 times as long as head and body.

Nostril separated from the upper labial and the postnasal by a narrow rim\*; nasals forming a suture behind the rostral, the suture  $\frac{1}{4}$  to  $\frac{1}{2}$  the length of the frontonasal, which is much broader than long and broader than the internarial space; præfrontals forming a short median suture; frontal as long as its distance from the end of the snout,  $1\frac{2}{3}$  to 2 times as long as broad, angular in front, narrower behind, not grooved; parietals  $1\frac{1}{2}$  to  $1\frac{2}{3}$  times as long as broad; interparietal small, usually separated from the occipital by a small shield. 4 supraoculars, first small and usually in contact with the frontal, second and third large and subequal, fourth small and sometimes broken up into two or three; 6 or 7 superciliaries, separated from the supraoculars by a series of granules. Lower eyelid somewhat transparent, with feebly enlarged scales in the middle, some of which are deeper than the others. Rostral not entering the nostril; a single postnasal; anterior loreal shorter than the second; 5,

\* Exactly as in *Lacerta perspicillata*.



rarely 4\*, upper labials anterior to the subocular, which is a little narrower beneath than above. A long narrow upper temporal, usually in contact with the fourth supraocular, followed by one or two small shields; temporal scales mostly hexagonal, very small above, larger beneath; a narrow curved tympanic shield.

5 pairs of chin-shields, first three in contact in the middle; 29 to 34 gular scales in a straight line in the middle, granular in front, gradually or abruptly enlarged and imbricate towards the collar; no gular fold. Collar with strongly serrated edge, composed of 7 to 10 plates.

Scales granular and smooth on the nape, rhombic, juxtaposed or subimbricate, and obtusely keeled on the body; 4 or 6 series of hexagonal plates along the back, more or less strongly keeled; 38 to 42 plates and scales across the middle of the body †; 12 or 14 large keeled scales in a transverse series between the hind limbs. Ventral plates in 6 longitudinal and 28 to 31 transverse series, the border of the transverse series feebly notched between the plates, the median pair of which is narrower than the others. Præanal plates small and irregular, or two large one in front of the other, or three large forming a triangle.

14 to 16 femoral pores on each side. 33 to 35 lamellar scales under the fourth toe.

Caudal scales in alternating somewhat longer and shorter whorls, upper oblique, strongly and diagonally keeled, rounded or obtusely pointed behind, lower keeled; 26 to 30 scales in the fourth or fifth whorl behind the postanal granules.

Brown to blackish above, with six yellowish-white streaks, two along the back, diverging on the nape, and two on each side, the upper from behind the eye to the base of the tail, passing above the tympanum, the lower from the upper lip, through the tympanum and above the fore limb, to the base of the thigh; the dark band between the two light lateral streaks sometimes spotted with whitish; upper surface of head and limbs pale brown; lower parts white; tail pale brown above, yellowish beneath, orange-red distally in the young.

Measurements, in millimetres.

	1.	2.	3.
From end of snout to vent .....	73	82	80
"    "    fore limb ...	29	29	28
Head .....	18	19	18
Width of head .....	11	12	11
Depth of head .....	9.5	10	9
Fore limb .....	26	30	26
Hind limb .....	48	53	47
Foot .....	25	28	25
Tail .....	205	190	200

1. ♂, Mt. Manif. 2. ♀, Mt. Manif. 3. ♀, Lahej.

\* In the female from Mt. Manif.

† Anderson's count, 47, is taken higher up the body.

## Particulars of specimens examined.

	1.	2.	3.	4.	5.	6.	7.
♂, Mt. Manif.....	73	38	30	7	33	15-16	34
♂, „ .....	82	38	29	7	29	14	34
Hgr., „ .....	50	39	28	9	34	15	34
♀, Lahej .....	80	42	31	8	31	16	33
Hgr., „ .....	53	40	30	10	32	14-15	35

The type-specimen, preserved in the Berlin Museum, has been compared with the specimens from Lahej.

*Habitat.* This species is only known from South-Western Arabia inland of Aden, specimens having been obtained at Lahej and in the Wadis below Mt. Manif, near Lahej.

4. *PHILOCHORTUS INTERMEDIUS*, sp. n. (Pl. II. figs. 2, 3.)

*Latastia hardeggeri* (non Steind.), Bouleng. Ann. & Mag. N. H. (7) ii. 1898, p. 130.

*Latastia hardeggeri*, part., Anders. Proc. Zool. Soc. 1901, ii. p. 145.

Head and body rather depressed. Head  $1\frac{2}{5}$  to  $1\frac{3}{5}$  times as long as broad, its depth equal to the distance between the anterior corner or the centre of the eye and the tympanum, its length 4 to  $4\frac{1}{3}$  times in length to vent in males,  $4\frac{1}{3}$  to 5 times in females; snout obtusely pointed, as long as postocular part of head, with obtuse canthus. Pileus 2 to  $2\frac{1}{4}$  times as long as broad. Neck as broad as the head or a little narrower. Hind limb reaching the elbow or the axil in females, the axil, the shoulder, or the collar in males; foot  $1\frac{1}{3}$  to  $1\frac{1}{2}$  times as long as head; toes slender, compressed. Tail 2 to  $2\frac{3}{4}$  times as long as head and body.

Nostril separated from the upper labial and the postnasal by a narrow rim; nasals forming a suture behind the rostral, the suture  $\frac{1}{3}$  to  $\frac{2}{3}$  the length of the frontonasal, which is broader than long and broader than the internarial space; præfrontals forming a short median suture; frontal as long as its distance from the end of the snout or a little shorter,  $1\frac{2}{3}$  to 2 times as long as broad, angular or rounded in front, narrower behind, not or but feebly grooved; parietals  $1\frac{1}{2}$  to  $1\frac{2}{3}$  times as long as broad; interparietal 2 to 3 times as long as broad, in contact with the occipital, which is usually broader and about half as long. 4 supraoculars, first small, sometimes broken up into 2 or 3, and as often as not in contact with the frontal, second and third large and equal or second a little longer, fourth small and usually broken up into 2 or 3; 6 or 7 superciliaries, separated from the supraoculars by a complete series of granules, or first in contact with the first and second supraoculars. Lower eyelid somewhat transparent, with feebly enlarged scales in the middle, some of which may be deeper than the others. Rostral not entering the

nostril; a single postnasal; anterior loreal shorter than the second; 5, rarely 4\*, upper labials anterior to the subocular, which is narrower beneath than above. A long narrow upper temporal, usually in contact with the fourth supraocular, usually followed by one or two small shields; temporal scales very small and granular above, much larger beneath; a curved tympanic shield.

4 pairs of chin-shields, sometimes followed by a small fifth, first three in contact in the middle; 21 to 28 gular scales in a straight line in the middle, granular in front, gradually or abruptly enlarged and imbricate towards the collar; no gular fold. Collar with strongly serrated edge, composed of 7 to 10 (exceptionally 4) plates.

Scales granular and smooth on the nape, rhombic and keeled on the body; 2 or 4 series of hexagonal plates along the back, more or less strongly keeled, rarely faintly keeled; 33 to 40 plates and scales across the middle of the body; 12 to 18 large keeled scales in a transverse series between the hind limbs. Ventral plates in 6 longitudinal and 27 to 32 transverse series (27 to 30 in males, 30 to 32 in females), the border of the transverse series feebly notched between the plates, the median pair of which is narrower than the others. Præanal plates small and irregular, or two or three enlarged ones in the middle, in a series or three forming a triangle.

12 to 18 femoral pores on each side. 24 to 30 lamellar scales under the fourth toe.

Caudal scales in alternately somewhat longer and shorter whorls, upper oblique, strongly and diagonally keeled, rounded or obtusely pointed behind, lower keeled; 24 to 28 scales in the fourth or fifth whorl behind the postanal granules.

Young black on the upper surface of the body, with 6 yellow streaks, the median pair diverging towards the occiput, to embrace an additional pair of short streaks, or each streak bifurcating just before reaching the occiput; the upper lateral streak extends from behind the eye to the base of the tail, passing above the tympanum, the lower from the upper lip, through the tympanum and above the fore limb, to the thigh; head and upper surface of fore limbs brown, hind limbs and tail coral-red, throat and belly white.

These markings may persist more or less distinctly in the adult, which vary much in colour; the blackish bands between the light streaks may be much spotted with whitish, or broken up into spots, or the upper parts may be grey, brown, or reddish with 7 blackish longitudinal streaks (9 behind the occiput) or merely with two series of blackish spots on each side. Tail often reddish towards the end.

\* 4 in two specimens only.





its length  $4\frac{1}{3}$  to 5 times in length to vent; snout pointed, as long as postocular part of head, with rather sharp canthus. Pileus  $1\frac{3}{4}$  to 2 times as long as broad. Neck as broad as the head or a little narrower. Hind limb reaching the shoulder, the collar, or between the collar and the ear; foot  $1\frac{2}{5}$  to  $\frac{3}{5}$  times as long as head; toes slender, compressed. Tail  $2\frac{2}{5}$  to  $3\frac{1}{4}$  times as long as head and body.

Nostril between three shields, or separated from the upper labial and the postnasal by a narrow rim; nasals forming a suture behind the rostral, the suture  $\frac{1}{4}$  to  $\frac{2}{3}$  the length of the frontonasal, which is much broader than long and broader than the internarial space; præfrontals forming a short median suture; frontal as long as its distance from the end of the snout or a little shorter,  $1\frac{1}{2}$  to  $1\frac{2}{3}$  times as long as broad, angular or rounded in front, narrower behind, distinctly grooved; parietals  $1\frac{1}{4}$  to  $1\frac{1}{3}$  times as long as broad, in contact with the upper postocular; interparietal extremely narrow, in contact with or narrowly separated from the very small occipital\*. Two large supraoculars, subequal or anterior the shorter, entirely surrounded by a series of granules†, of which larger ones represent the first and fourth supraoculars; 5 or 6 superciliaries. Lower eyelid somewhat transparent, with feebly enlarged scales in the middle, some of which may be deeper than the others. Rostral not entering the nostril; a single postnasal; anterior loreal shorter than second; 5 upper labials anterior to the subocular, which is narrower beneath than above. A long narrow upper temporal, followed by a shorter shield; temporal scales very small and granular above, much larger beneath; a small curved tympanic shield usually present.

4 pairs of chin-shields, first three in contact in the middle; 25 to 28 gular scales in a straight line in the middle, granular in front, gradually or abruptly enlarged, and imbricate towards the collar; no gular fold. Collar with strongly serrated edge, composed of 7 or 8 plates.

Scales granular and smooth behind the occiput, rhombic, subimbricate, and keeled on the body; 4 or 6 series of hexagonal strongly keeled plates along the back, 8 between the hind limbs. 24 to 28 ‡ plates and scales across the middle of the body. Ventral plates in 6 longitudinal and 27 to 30 transverse series, the border of the transverse series feebly notched between the plates, the median pair of which is narrower than the others. Preanal plates small and irregular, or one enlarged.

11 to 13 femoral pores on each side. 25 to 31 lamellar scales under the fourth toe.

Caudal scales in nearly equal whorls, upper oblique, strongly

\* A small shield between the interparietal and the occipital in one young specimen.

† In one of the two type-specimens described by Steindachner, the circle of granules is incomplete, the supraoculars being in contact with the frontal.

‡ 30 in the type of *Eremias heterolepis*, according to Boettger.

and diagonally keeled, pointed and more or less distinctly mucronate behind, lower keeled, except the basals; 22 to 28 scales in the fourth or fifth whorl behind the postanal granules.

Young black above with five yellowish-white longitudinal streaks, the median bifurcating on the nape, the two laterals as in the preceding species; head and limbs brown above, hind limbs with round white spots; throat and belly white, lower surface of hind limbs and tail coral-red. Adult brown above, with a more or less distinct yellow vertebral streak, bifurcating on the nape and extending some way down the tail; each of the dorsal plates with a small blackish spot; sides of body pale greyish brown, with a series of large blackish spots or bars; lower parts white.

Measurements, in millimetres.

	1.	2.	3.
From end of snout to vent .....	70	70	56
"                    fore limb ...	23	24	19
Head .....	14	14	13
Width of head .....	10	9	8
Depth of head .....	7	8	6
Fore limb .....	22	22	18
Hind limb .....	42	38	34
Foot.....	22	21	18
Tail.....	180	170	155

1. ♂, Berbera. 2. ♀, Berbera. 3. ♀, Mandah, type of *L. degeni*

Particulars of specimens examined.

	1.	2.	3.	4.	5.	6.	7.
♂, Berbera.....	70	24	27	7	25	11	26
♀, " .....	70	26	30	7	28	11	25
" " .....	65	26	28	7	28	12-13	28
" Mandah .....	56	24	30	7	26	11	31

*Habitat.* Northern Somaliland and Abyssinia. The type-specimens, preserved in the Vienna Museum, are from between Hensa and Artec, near Harrar.

This species is distinguished from the two preceding by the lower number of plates and scales across the body, and by the nearly constant presence of a series of granules between the supraoculars and the frontal; also by the light vertebral streak.

List of the Specimens in the British Museum.

*Philochortus spinalis* Peters.

1. ♂.	Rugdeia Sogheira, Adal, Eritrea.	Marquis O. Antinori.
2-9. ♂ ♀ & yg.	Ghinda, Eritrea.	Signor Ragazzi.

*Philochortus phillipsii* Blgr.

1-2. ♂ & hgr., types.	Berbera, Somaliland.	E. Lort Phillips, Esq.
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*Philochortus neumanni* Matschie.

- 1-2. ♀ & hgr. Lahej, near Aden. Col. Verbury.  
 3-5. ♂ ♀ & hgr. Wadis below Mt. Manif, N. of Lahej. A. B. Percival, Esq.

*Philochortus intermedius* Blgr.

- 1-10. ♂ ♀ & yg., Wagga, Goolis Mts., 3000-4000 ft., G. W. Bury, Esq.  
 types. Somaliland.  
 11. ♂, type. Berbera, Somaliland. E. Lort Phillips, Esq.  
 12-30. ♂ ♀ & yg., Inland of Berbera, up to 400 ft. G. W. Bury, Esq.  
 types.

*Philochortus hardeggeri* Sldr.

1. ♂, type of *Lactastia degeni*. Mandah, Somaliland. Mr. E. Degen.  
 2-6. ♂ ♀ & yg. Inland of Berbera, up to 400 ft. G. W. Bury, Esq.

## EXPLANATION OF THE PLATES.

## PLATE I.

- Fig. 1. *Philochortus spinalis*, p. 146, ♀, nat. size.  
 1 a. " " Upper view of head, × 2.  
 1 b. " " Side " " " " " "  
 1 c. " " Scales in middle of back, × 3.  
 2. " " Young, nat. size.  
 3. " *phillipsii*, p. 148, ♂, nat. size.  
 3 a. " " Upper view of head, × 2.  
 3 b. " " Side " " " " " "  
 3 c. " " Scales in middle of back, × 4.  
 4. " " Young, nat. size.

## PLATE II.

- Fig. 1. *Philochortus neumanni*, p. 150, ♂, nat. size.  
 2. " *intermedius*, p. 152, ♀, nat. size.  
 2 a. " " Upper view of head, × 2.  
 2 b. " " Side " " " " " "  
 2 c. " " Scales in middle of back, × 3.  
 3. " " Young, nat. size.  
 4. " *hardeggeri*, p. 154, ♀, nat. size.  
 5. " " Young, nat. size.